Abstract

A method and apparatus for object detection and ranging is disclosed. An returned signal is sequentially received by one of several sensors mounted on a host vehicle. Each one in turn initiates successive sampling to collect a series of returned signal values, which are then compared with corresponding threshold values previously saved in a memory device to determine whether any object is in the way of the vehicle backing up and also to estimate the relative distance from the object. The control circuit in accordance with the invention includes a processor, which together with a channel selector establishes a sequence of signal transmission and reception each time by one of several sensors. A sampled signal is first passed through an A/D converter to become digital, and then it is input to the processor for object detection and ranging computation.